

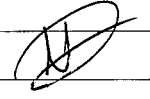
Work Order ID 133656

Tuesday, June 16, 2015 8:44:13 AM

133656

Page 1

Item ID: D4306-045 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Rib Assembly
Start Date: 6/22/15 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 7/03/15 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan:  Date: 6.6.15 Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____
Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D4306	C

100 Weld per dwg A/R S.S. rod Batch: 125054 0.00

100

Large Fab

Large Fab

Memo

- 1- Cut tube 50"
2- Bend tube with manuel pipe bender as per DT9567
*** Make line at 9.00" and use jig for other lines, and ensure seam in place on side of tube when bending***
3- Trim access tube material to finish size as per dwg D4306-5
4- Drill and chamfer holes as per dwg D4306-5 using DT9710
5- weld bushing as per dwg D4306
6- grind welds flush

0.00

110

QC6- Inspect dimensions to drawing 0.00

110

QC

Quality Control

Memo

0.00

1x Oh 15/6/17

1x DAS 43 JUN 17 2015 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Work Order ID 133656

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Page 2

Tuesday, June 16, 2015 8:44:13 AM

Item ID: D4306-045 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Rib Assembly
 Start Date: 6/22/15 Start Qty: 1.00 ***1*** Cust Item ID:
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 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC10- Inspect visual per OSI004- ground welds	0.00							
120						1x	DAS 43 9-89		JUN 17 2015
QC	Memo	0.00							
Quality Control									
130	Identify as per dwg & Stock Location: <u>WA04</u>	0.00							
130						1x	DAS 43 9-89		JUN 17 2015
Packaging	Memo	0.00							
Packaging	LOCATION: WA004								
140	QC21- Final Inspection - Work Order Release	0.00							
140							MLJ		JUN 18 2015
QC	Memo	0.00							
Quality Control									

MLJ JUN 18 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
☐ OTHER : _____					

Picklist Print

Tuesday, June 16, 2015 8:44:18 AM

Page 1

Work Order ID: 133656

133656

Parent Item: D4306-045

D4306-045

Parent Item Name: Rib Assembly

Start Date: 6/22/15

Required Date: 7/03/15

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A 11.01.20 new issue DD verf:EC
11.03.03 AS PER DWG REV.C DD verf:EC

IPP Rev:B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D3759-1		Manufactured	No			100	Each	177.0000	4	4			
---------	--	--------------	----	--	--	-----	------	----------	---	---	--	--	--

D3759-1

Bushing

**DAS
43
9-89**

JUN 17 2015

B132468 → 4

Location

Loc Qty

Loc Code

WA004

177

116816

59

117449

2

130893

18

132468

90

132855

8

M304TS0.750W.049

Purchased

No

100

f

711.5750

4.166

5

M304TS0 750W 049

304 SQ Tube .75x.75x.049W

DL 15/6/17

Location

Loc Qty

Loc Code

WA004

711.575

M130871

84.4

M131128

56.175

M131868

571

5

DQA: _____ Date: _____



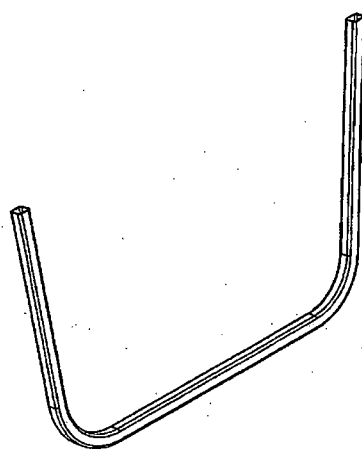
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

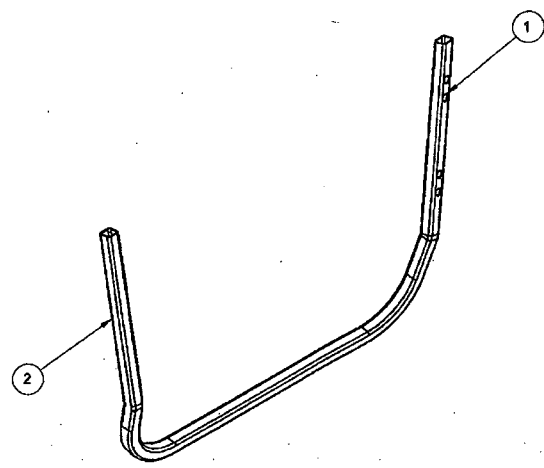
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

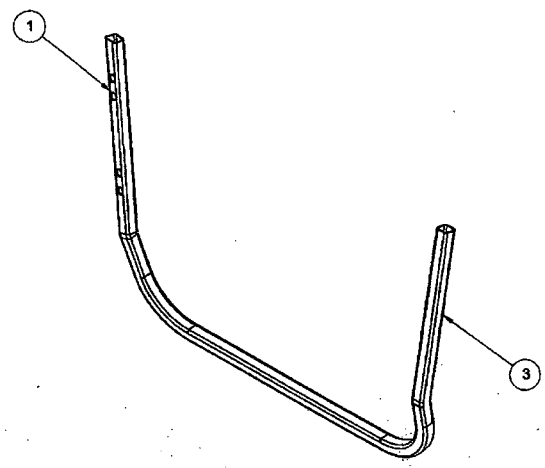
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	X			D4306-043	RIB ASSY, LH
		X		D4306-044	RIB ASSY, RH
			X	D4306-045	RIB ASSY
1	4	4	4	D3759-1	BUSHING
2	1			D4306-3	RIB
3		1		D4306-4	RIB
4			1	D4306-5	RIB



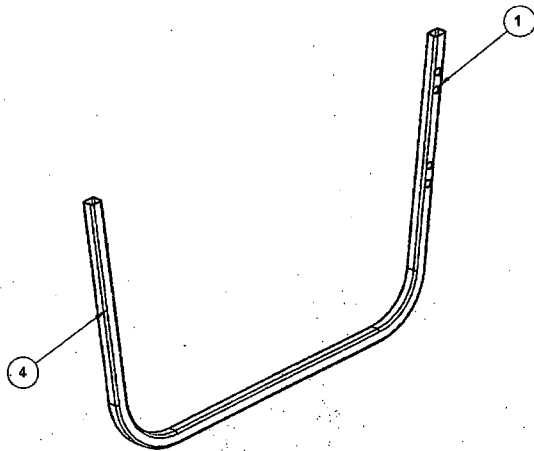
D4306-1 RIB



D4306-043 RIB ASSY, LH



D4306-044 RIB ASSY, RH



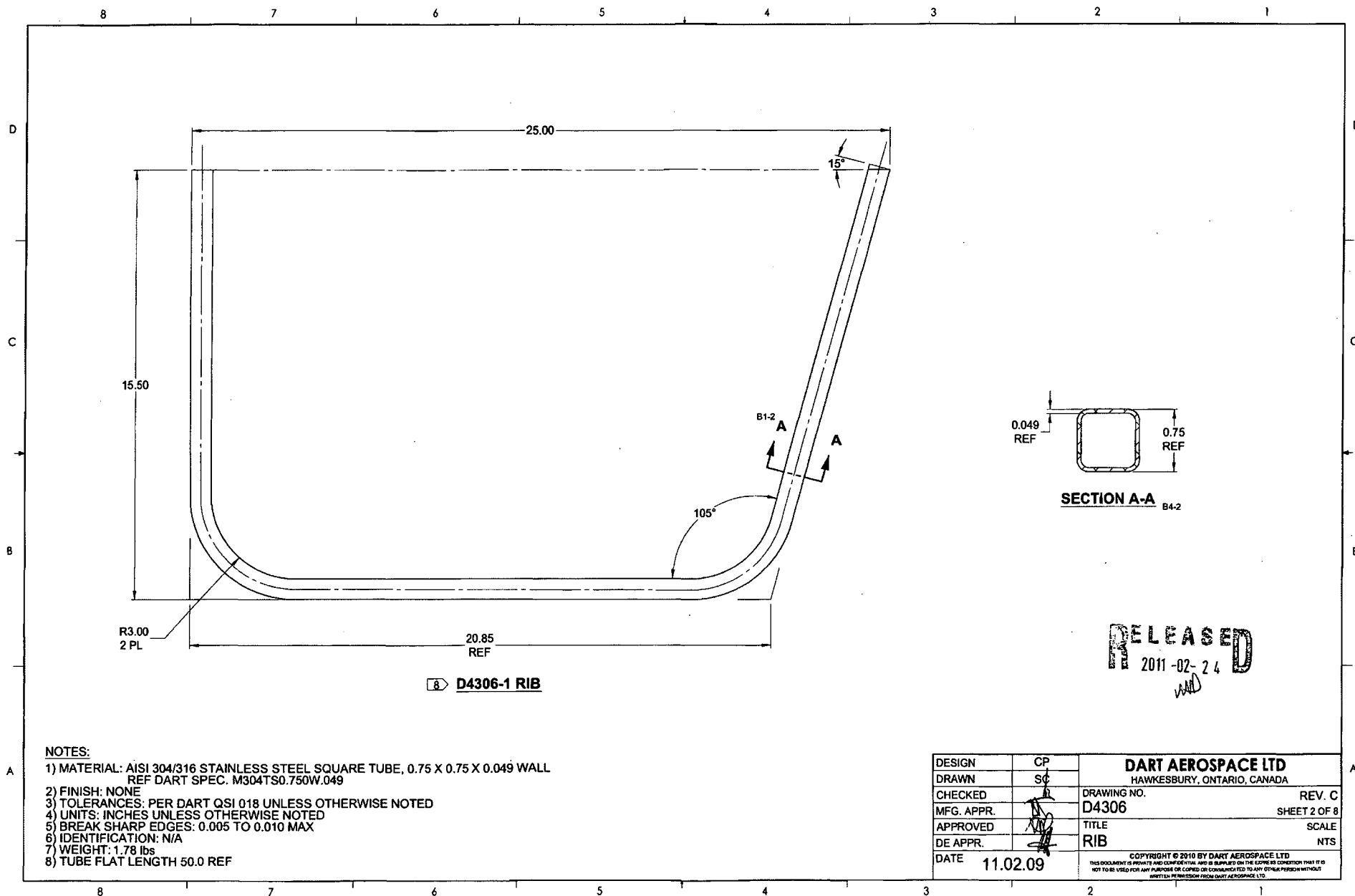
D4306-045 RIB ASSY

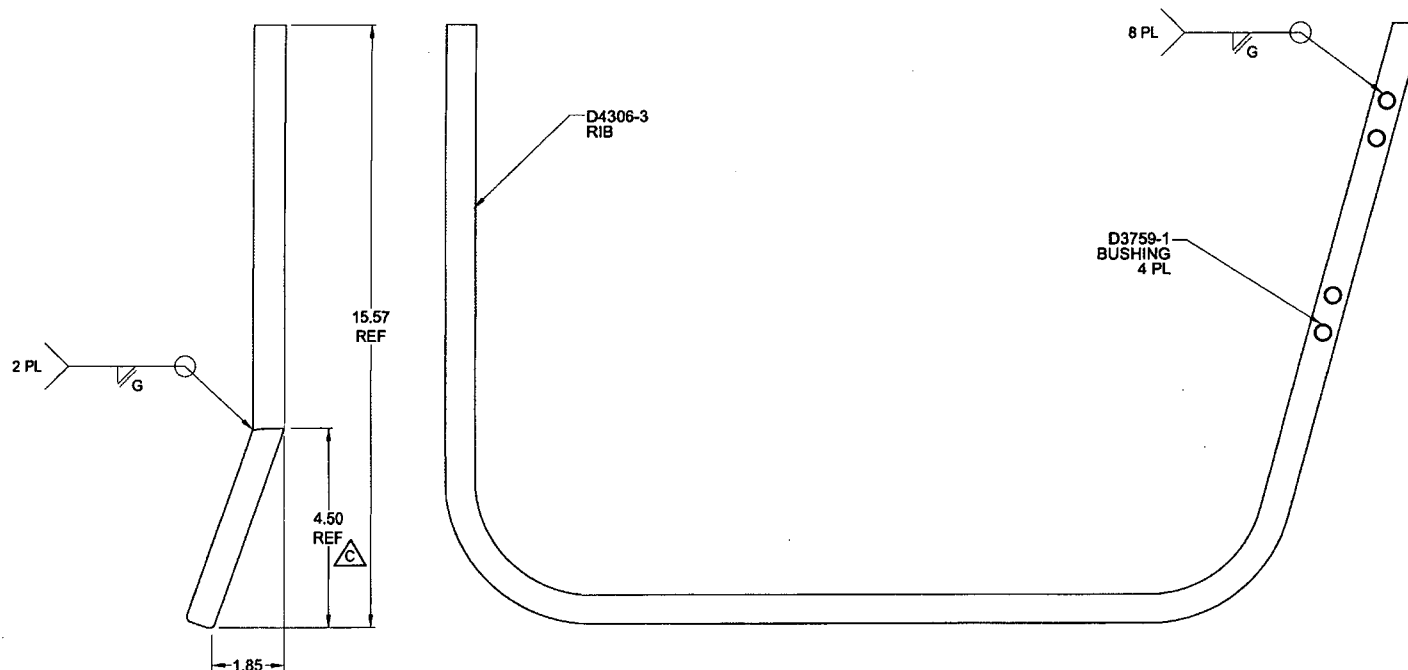
156-16
133656

RELEASED
2011-03-10

REV.	DESCRIPTION	BY	DATE
C	REFERENCE LENGTH CHANGED TO 52.0" FOR D4306-3, D4306-4 RIBS (A7-41-6); INCREASED LENGTH OF D4306-3, D4306-4 RIBS BY 0.65" (C7-4, C8-4, C1-6, C2-6); CHANGED CUT ANGLE FROM 19° TO 22° (B8-4, B1-6); ADDED 4.50" REF DIM ON D4306-043/044 (B6-3, B3-5)	SC	11.02.09
B	D4306-043, D4306-044, D4306-045 ADDED	SC	10.12.17
A	NEW ISSUE	CP	10.11.29
DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC	DRAWING NO.	REV. C
CHECKED		D4306	SHEET 1 OF 8
MFG. APPR.		TITLE	SCALE
APPROVED		RIB	NTS
DE APPR.		DATE 11.02.09	

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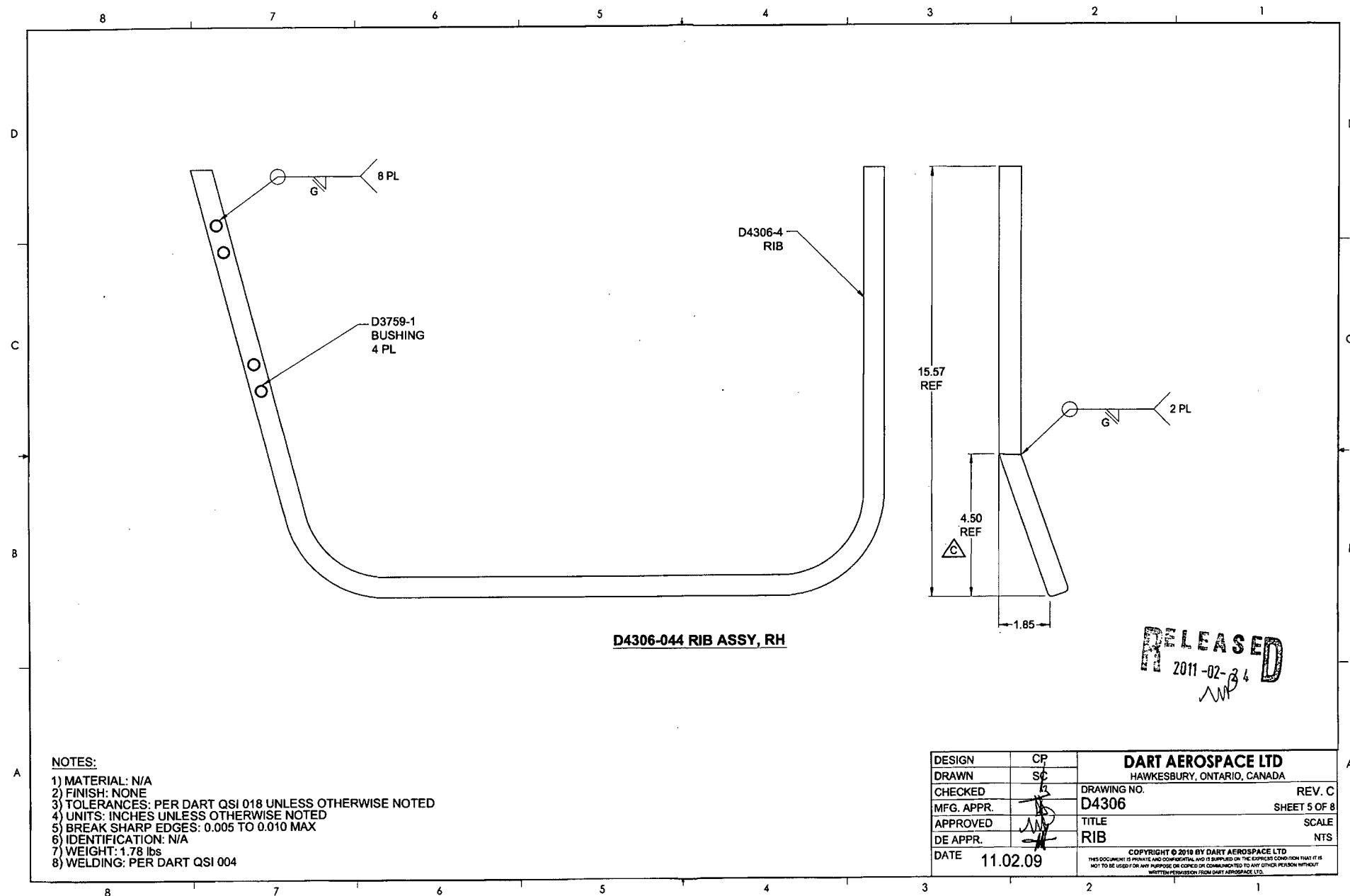
D4306-043 RIB ASSY, LH

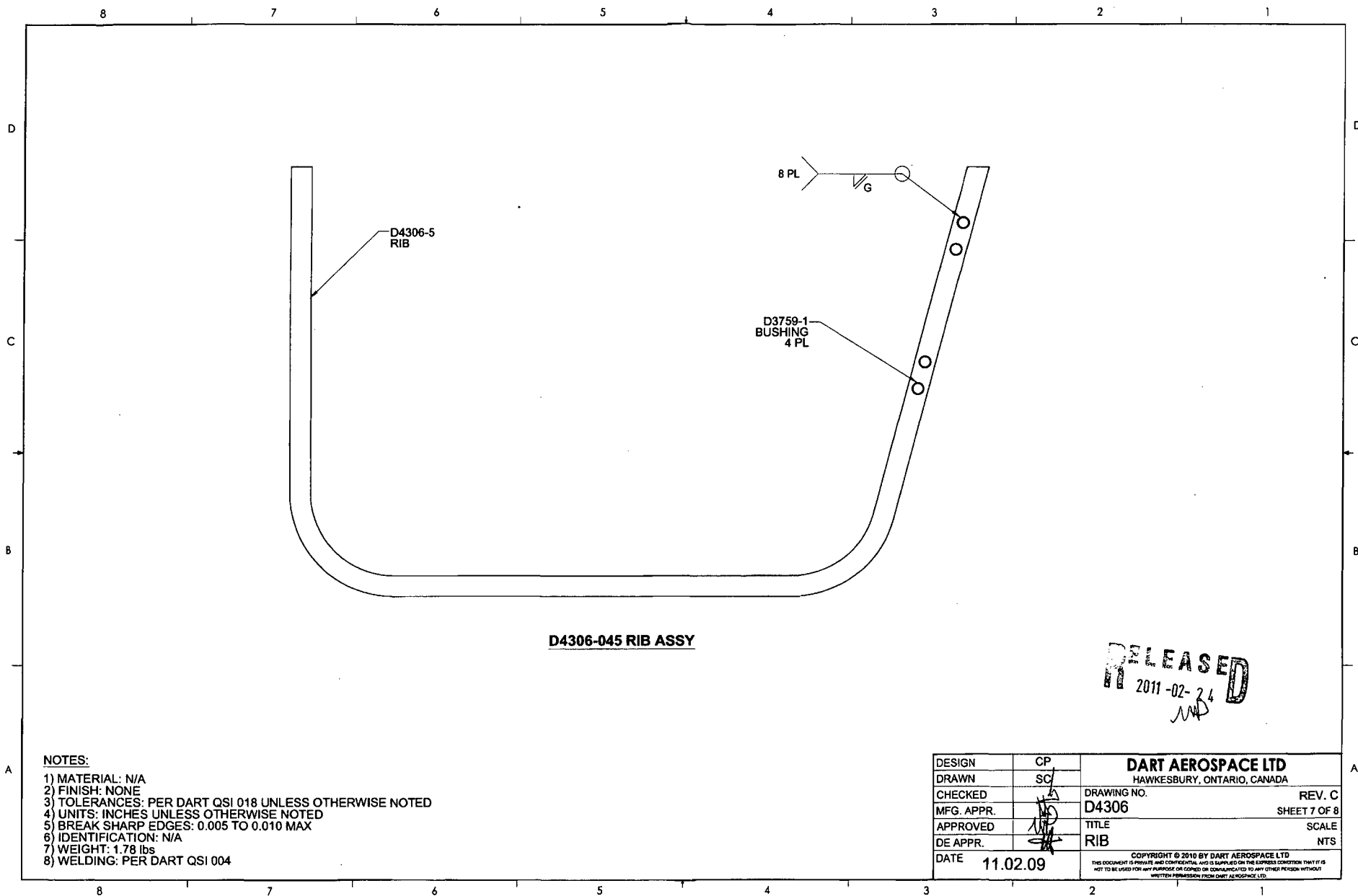
RELEASED
2011-02-24
AND

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 1.78 lbs
- 8) WELDING: PER DART QSI 004

DESIGN	CP	DART AEROSPACE LTD	
DRAWN	SC	HAWKESBURY, ONTARIO, CANADA	
CHECKED	SA	DRAWING NO.	REV. C
MFG. APPR.	SA	D4306	SHEET 3 OF 8
APPROVED	SA	TITLE	SCALE
DE APPR.	SA	RIB	NTS
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NOTES:

- 1) MATERIAL: N/A
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- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
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DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC		
CHECKED	✓	DRAWING NO.	REV. C
MFG. APPR.	✓	D4306	SHEET 7 OF 8
APPROVED	✓	TITLE	SCALE
DE APPR.	✓	RIB	NTS
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